MANAGING FORAGES

Grazing properly

A sound grazing plan adjusts the length of grazing and resting periods to balance the needs of livestock and the plants they eat, and usually includes rotational grazing of two or more pastures.

Rotational grazing systems promote plant and root growth, reduce soil erosion, provide wildlife habitat and protect water quality.

In addition, rotational grazing systems are designed to promote optimum forage utilization, extend the growing season and increase carrying capacity and profit potential.

The length of rest period for a desired plant species varies throughout the season. When growing conditions are good, the rest period may be as little as 15 to 20 days. Later in the season, 45 to 50 days may be required to ensure adequate rest.

Rest periods speed plant growth and can be used to help establish and maintain legumes in the forage stand. During periods of fast growth, rests should be shorter to keep plants from going to seed. Longer rests periods are needed when pasture growth slows.

Legumes need at least a 30 day rest during the growing season to allow for regrowth and reseeding.

In a 2 to 4 paddock system, livestock could be moved every 7 to 14 days. However, with more intensive systems, plan for rest and regrowth periods of 25 to 35 days. This would require 5 to 12 paddocks and moving livestock every 2 to 8 days depending on stocking density and plant growth.

Try to move livestock according to plant growth and not just calendar days.

"One of the most important things is to leave grass in the fall."
Ralph Neill
Adams County farmer

Forage Guidelines

Forage	Full Seeding Rate # PLS/acre:	Begin grazing at	Graze no closer than: than:	Cut for hay at:	Allow regrowth to this height before killing frost:
Cool season					
Kentucky bluegrass	15	4-5"	2"	Not recommended	4"
Orchardgrass	5	6-8"	4"	Boot to early head	6"
Reed canarygrass	6	8"	4"	Early boot	6"
Smooth bromegrass	16	6-12"	4"	Med. to full head	6"
Tall fescue	10	6-10"	4"	Boot to early head	6"
Timothy	3	6-10"	3"	Early head	5"
Warm season					
Switchgrass	5	16-20"	6"	Early head	6"
Indiangrass	10	12-16"	6"	Boot	6"
Big bluestem	10	10-16"	6"	Boot	6"
Legumes					
Birdsfoot trefoil	6	6-10"	4	Early flower	6"
Red clover	8	1/4 bloom	2"	3/4 to full bloom	8"
Alfalfa	10	full bud	2"	Late bud	9"
Crownvetch	8	8-10"	3"	Use grass timing	6"

Notes: Seeding rates can generally be reduced by 25% when grasses are mixed with legumes.
Hay height is for first cutting.

Review and adapt your rotation schedule regularly to balance the needs of livestock and forages.

Checklist for keeping a good grazing system

- ✔ Graze to proper height at the right time. Use a "take half, leave half" guide to grazing, or consult the forage guidelines chart (page 8).
- ✔ Check forage and livestock at regular intervals and move livestock according to the forage.
- ✔ Allow pasture to rest periodically. Don't leave livestock on pastures being rested.
- ✔ Top-dress with fertilizer according to soil tests.
- ✔ Maintain good fences.
- ✔ Mow or hay paddocks before grass has set seed heads. Weeds or weedy grasses should be mowed when they reach a height of 6 inches, before they begin to compete for moisture and seeds mature.
- ✔ Remove above ground pasture water systems in the winter and reinstall in the spring.
- ✔ Review and adapt rotation schedule when herd size, or paddock number or size change.

Grazing rule of thumb for cattle: If you can't see the cow's eyes (above), the grass is too tall. If you can see her nose (below), it's too short.

Estimated cattle stocking rates, Adams County

Grazing system	Acres needed per cow/calf pair		
	Bluegrass	Cool season grass	Cool season grass & legume
Continuous graze	3.25-4.5	3.0-4.25	2.5-3.0
Rotational graze (2 pastures)	2.75-4.0	2.5-3.75	2.0-2.75
Rotational graze (4 pastures)	2.5-3.5	2.25-3.25	1.75-2.5
Rotational graze (multi-paddock, 30 day rest)	2.25-3.10	1.75-2.75	1.75-2.25

Note from this chart that you have two ways to carry more livestock on fewer acres–by improving forages or rotating pastures. The best carrying capacity comes from doing both. Actual stocking rates may vary according to soil type, weather, soil fertility, type of cattle and management. Different variables will yield different carrying capacities.